Subject: Walkthrough products from Tony Takacs
From: "Steve Neilson" <sneilson@jlab.org>
Date: Tue, 7 Aug 2007 09:34:08 -0400
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Craig,

I've attached the walkthrough summaries conducted last week by Tony Takacs for the Site Office. These are being sent to you, as the programmatic areas assessed are under the direction of the ESH&Q group. Let me take this opportunity to convey the positive comments expressed by Tony with regard to the individual attention on ergonomic cases, and the overall ergonomic program management exhibited by Dr. Chandler and the clinic staff.

By COB this Thursday, August 9th, please confirm the characterization of all identified Findings in the Confined Space write-up. We believe this vetting process has already been performed with John Kelly.

For future reference, the Site Office proposes that Findings identified through the course of walkthrough activities will be discussed at the time of discovery, with concurrence and/or understanding achieved with the Lab's respective SME shortly thereafter. The Site Office will transmit Findings in a walkthrough summary via e-mail, or by letter if deemed appropriate. Thirty days from the transmission of any Finding, the Lab will be expected to provide a response to the Site Office via e-mail or letter, itemizing each Finding and showing the corresponding Corrective Action Tracking System (CATS) number(s) and assigned date of closure. Within the Lab's reply, a brief disposition should be included on each Observation contained in the walkthrough write-up.

This approach maintains a degree of consistency with the protocol used for processing Findings and Observations identified through Surveillances, without imposing the extent of senior management review applied to processing Surveillance reports and corrective action plans.

Thanks.
Steve

Walkthrough products from Tony Takacs	**Content-Type:** message/rfc822 **Content-Encoding:** 7bit

TONY ODH.doc	**Content-Type:** application/msword **Content-Encoding:** base64

TONY Ergonomic Program.doc	**Content-Type:** application/msword **Content-Encoding:** base64

TONY Nitrogen.doc	**Content-Type:** application/msword **Content-Encoding:** base64

TONY CONFINEDSPACE.doc	**Content-Type:** application/msword **Content-Encoding:** base64

DOE ODH Observations

1. On April 17, 2007, in Building 8 (Central Helium Liquefier) K100 addition, a worker was observed without multiple personnel in communication, as required by 6500-T1 *ODH Control Practices*. On April 16, 2007, in Building 57, a worker was observed without multiple personnel in communication, as required by 6500-T1 *ODH Control Practices*. However, the worker was wearing a personnel ODH monitor. Further discussions revealed that an Operational Safety Procedure is in effect that discuses this practice; however this practice is not discussed in 6500 *Cryogenic and ODH Safety*.

2. Appendix 6500-R2 *ODH Areas* lists the Cryomodule Test Cave (with concrete doors closed) as an ODH 1 Area. This is inconsistent with the *Final ODH Risk Assessment, CMTF* (dated June 8, 2002), which lists the Cryomodule; U tube stabbed with Rollup Door Closed as an ODH 2 Area.

3. In Appendix 6500-T2 *ODH Medical Monitoring* the Medical Certification (page 4) is not consistent with Table 1 Levels of ODH Medical Classification.
    - The Medical Certification form definition for ODH Qualified states "Medically approved to participate in ODH class 2 or greater operations"; however the Table 1 ODH Qualified definition is limited to Class 0-3.
    - There is no classification on the Medical Certification form for SCBA Qualified (ODH Class 4).

4. The calibration frequency for the Safety Systems Group stationary ODH monitors is not following the manufacturer's recommendation for periodic calibration.

Thomas Jefferson Ergonomic Program

An ergonomic program walkthrough was conducted August 1 and 2, 2007 at the Thomas Jefferson National Accelerator Facility (TJNAF). The TJNAF Ergonomic Program is handled by the Occupational Medical Director's office. During initial employee physical examinations the doctor will recommend a workplace ergonomic evaluation if the employee is pre-disposed, or has a medical history, to ergonomic injury. Over the last year, 32 Ergonomic Evaluations have been conducted by the Occupational Medical Director. These evaluations are documented in e-mails to the employees with recommendations for ergonomic improvements. The recommendations for equipment improvement are the responsibility of the employee, and division, to purchase and implement the Occupational Medical Directors recommendations. Once an occupational injury does occur, the Occupational Medical Director evaluates the work that involved the injury. An example of this is the May 2007 Transportainer back injury. In this case an employee injured their back bending down to latch a door on the container. The doctor evaluated the work and recommended a mid-height handle/latching mechanism. The doctor also is involved in workplace redesign. In 2004, the doctor provided input on the Building 85 control room renovation and redesign. The doctor was recently (June 2007) involved in a re-evaluation of the control room to recommend further enhancement. In 2005, the Occupational Medical Director provided Lifting and Ergonomic training to the Engineering Group and Machine Shop. TJNAF have incorporated Lessons Learned from ergonomic injuries into the Notable Event system and the JLab Weekly Briefs.

The following recommendations are suggested for further ergonomic program enhancement:

1. TJNAF should consider updating the ES&H Manual Appendix 6105-T1 *Guidelines for Office Ergonomics* to include contact information for ergonomic evaluations or further ergonomic program information.

2. TJNAF should consider updating the General Employee Training to discuss the Ergonomics Program including contact information for ergonomic evaluations or further ergonomic program information.

3. TJNAF should market/publicize the Ergonomic Program by including program information on posters or in laboratory newsletter. It should be noted that in 2003 the Occupational Medical Director's Office held an Office Ergonomics Party for employees in the VARC. It is suggested that this type of program be held for the entire site.

4. The current Ergonomic Program is reactive to employee inquiries. It is recommended that the program be proactive, as well as reactive. The ergonomic injury high risk work activities and work groups should be as part of routine workspace evaluations, to help avoid, employee injury.

5. The Occupational Medical Director's office should consider following up on ergonomic evaluations that have been conducted to verify the adequacy of corrective actions or otherwise ensure that employees are no longer having ergonomically related issues.

6. TJNAF should consider providing Ergonomic training to employees who are at subject to higher risk factors for ergonomic injury.

Confined Space Review

1. FINDING: No annual review has been documented in the last year of the Confined Space Program, as required by 29CFR1910.146(d)(14).

2. FINDING: The Confined Space Entry Permit, contained in Appendix 6160-T4 *General Procedure for Entry into Permit-Required Confined Spaces*, does not contain a place to record the attendant's name, as required by 29CFR1910.146(f)(5).

3. FINDING: The Confined Space Entry Permit does not contain the rescue and emergency services that can be summoned and the means for summoning, as required by 29CFR1910.146(f)(11).

4. FINDING: Appendix 6160-T2 *Ventilated Entry Procedure* does not meet the requirement of 29CFR1910.146(c)(7)(iii) or 29CFR1910.146(c)(5)(ii)(H) which requires that the employer shall document the basis for determining that all hazards in a permit space have been eliminated, through a certification that contains date, location of the space, and the signature of the person making the determination.

5. OBSERVATION: Many manholes were observed with the painting of the yellow international symbol for NO not visible, which is not in accordance with 6160 *Confined Space Entry*.

6. OBSERVATION: The Permit-Required Confined Space in Building 97 Pump Room and the storm sewer Southwest of Building 98 were not listed in Appendix 6160-T1 *List of Permit-Required Confined Spaces*.

Follow Up on Incident Investigation Report
Nitrogen Gas Release in Test Lab QA Room
on June 3-5, 2006 Follow Up Actions

1. The corrective action of disconnecting and capping the room 146B nitrogen lines is completed. A walkthrough on 4/16/2007 indicated that these lines have been removed from the room.

2. Discussions with Phil Mutton on 4/17/2007 indicated that particle counting is no longer done in this room.

3. The corrective action of removing the nitrogen lines in room 146B is completed. A walkthrough on 4/16/2007 indicated that these lines have been removed from the room.

4a. The ODH Analysis for the Test Lab High Bay and Basement have been completed. The Test Lab High Bay is covered in *ODH Risk Assessment Test Lab High Bay, Building 58, June 1, 2006*. The Basement is covered in *ODH Risk Assessment, 19 Rooms in Bldg 58, April 4, 2007 RevB*.

4b. A walkthrough of the High Bay area on 4/17/2007 indicate that the signs have been posted.

4c. An e-mail was sent by Phil Mutton to All Test Lab Workers on June 9, 2006 informing them of the posting and training requirements. On June 28, 2006, a labwide notification was sent using the JLab Weekly Brief.

5. A review and independent verification of previously conducted Test Lab ODH Analysis and Mitigation Project deliverables was conducted. A spreadsheet was developed which lists the deliverables and an independent verification of the actions.

6. A Test Lab ODH Mitigation Project 2006 QA Plan was provided.

7. A review was performed of common practice for use of compressed gas guns fed from pressurized gas supplies in the Test Lab. A safety briefing toolbox meeting presentation was developed for June 2007.

8. The Industrial Hygiene Lead provided an e-mail dated June 9, 2006 indicating that the posting requirements for the Test Lab were determined and that the ODH signs were ready to be installed.

9. A process was developed to assure timely closure, verification and acceptance of safety significant items in CATS.